

Abstract

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[Objectives]

An aluminum alloy for casting that realizes high rigidity and a low linear expansion coefficient, and at the same time, does not have a high cost, and has few restrictions at the time of recycling.

[Means for Achieving Objectives]

An aluminum alloy for casting with excellent rigidity and having a low coefficient of linear expansion containing 13-25% by mass of silicon, 2-8% by mass of copper, 0.5-3% by mass of iron, 0.3-3% by mass of manganese, 0.001-0.02% by mass of phosphorus, and the remainder comprising aluminum and inevitable impurities, wherein the total amount of iron and manganese is 3.0% by mass or greater. Said alloy may further contain 0.5-6% by mass of nickel, and the total amount of iron, manganese, and nickel may be 3.0% by mass or greater. Further, said alloy may further contain one or more of 0.1-1.0% by mass of chromium, 0.05-1.5% by mass of magnesium, 0.01-1.0% by mass of titanium, 0.0001-1.0% by mass of boron, 0.1-1.0% by mass of zirconium, 0.1-1.0% by mass of vanadium, or 0.01-1.0% by mass of molybdenum.

[Selected Figures]

None